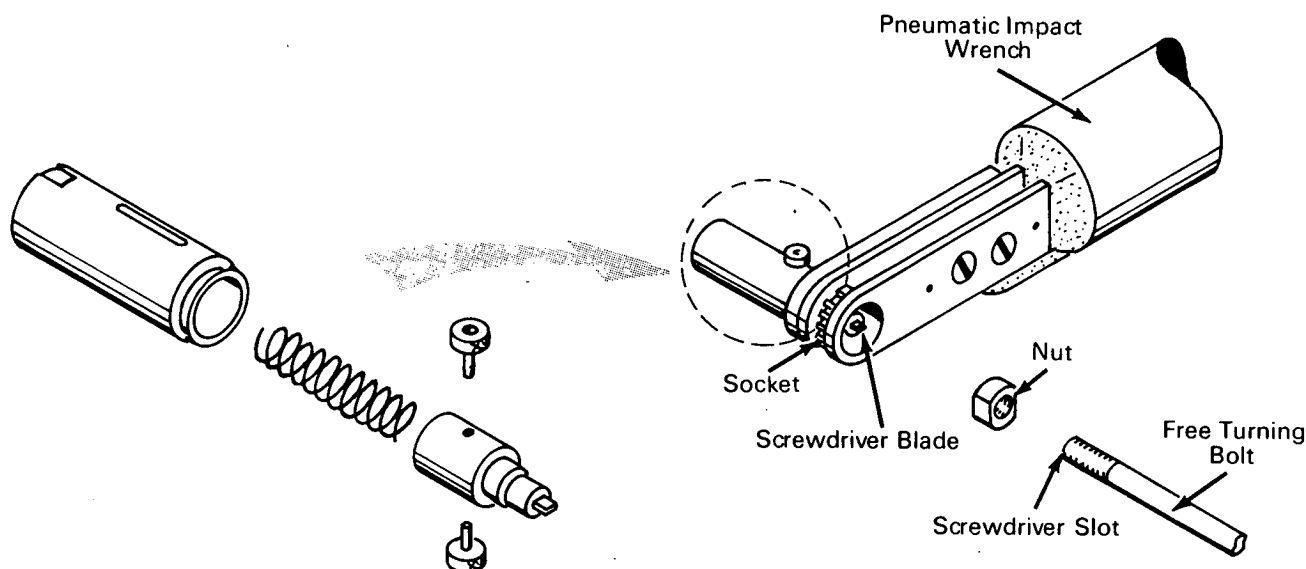


AEC-NASA TECH BRIEF



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Single Wrench Separates Nuts from Free-Floating Bolts



The problem:

It was required to remove the nuts from bolts that were free to turn. The bolts were in such locations that the heads could not be reached or the shafts anchored with a holding tool.

The solution:

A standard pneumatic impact wrench is modified to incorporate a fixed screwdriver blade that fits a slot cut into the threaded end of the bolt shaft.

How it's done:

A slot is cut into the threaded end of the bolt shaft. A standard pneumatic impact wrench is provided with a screwdriver blade fixed to the wrench body and protruding through the wrench drive socket so that it engages the slot in the bolt end as the socket engages

the nut. The screwdriver blade is held in the bolt slot by the action of a spring loading device that permits the blade to slide within a hollow shaft as the nut is withdrawn. The screwdriver blade is pinned from each side by screws that slide in slots cut into the hollow shaft.

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
AEC-NASA Space Nuclear Propulsion
Office
U.S. Atomic Energy Commission
Washington, D.C. 20545
Reference: B67-10158

(continued overleaf)

Patent status:

No patent action is contemplated by AEC or NASA.

Source: C. Thompson
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